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Poltergeists, Electromagnetism and Consciousness¹

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Abstract—Poltergeist occurrences are displays of energy that induce the movement of common household objects which ordinarily are held in place by inertia and gravity. At the same time the events reflect psychological tension between the central person and others, including investigators. Thus, the phenomenon combines physical and psychological processes. It is commonly referred to as recurrent spontaneous psychokinesis or RSPK.

Keywords: poltergeist — RSPK — psychokinesis — electromagnetism — consciousness — zero-point energy

Introduction

I became interested in poltergeists or recurrent, spontaneous psychokinesis (RSPK) because it was the only convincing psi phenomenon I had witnessed at the time. I did not expect to learn anything profound about human nature or the cosmos. I have since changed my mind. First, I will provide a summary of some cases.

Psi is divided into ESP or receptive psi and PK or expressive psi. PK is further divided into micro-PK, where the target is the output of a random event generator, and macro-PK, where large-scale objects levitate. RSPK is a form of macro-PK. I hoped to understand the energy that brings this about.

The first case I looked into (Pratt & Roll, 1958), “the house of flying objects,” took place in Seaford, Long Island. Detective Tozzi, who was in charge of the police investigation, suspected Jimmy, the 12-year-old son in the family, of trickery because he was usually at home and awake when things moved. But then an officer witnessed an incident he could not explain away. Pratt and I spent several days in the home and were present when a laundry bottle in the basement fell over and spilled when we were with the family upstairs.

Pratt and I thought the phenomena were probably genuine, but could not be certain since there had only been one incident when we were present, and that took place in another part of the house. Assuming the occurrences were real, I examined the factors on which they seemed to depend (Roll, 1968). Most of the disturbed things belonged to the parents and the events often happened in their living space. For instance, a male and a female figurine moved several feet and broke in the sitting room, which was reserved for the parents. Psychological studies suggested that the boy had strong feelings of anger towards his father. Bottle incidents were common, indicating a focusing effect. The bottles were

mostly associated with the mother, and the disturbances may also have reflected unmet dependency needs.

To explore the physical aspects of the incidents, I measured the distances of the objects from the boy. I found that the number of movements showed a statistically significant decline with distance, which suggested that the force was energetic at the same time it was psychological.

Three of the other cases we investigated were more convincing, the Miami case, the Olive Hill case, and the Tina Resch case.

The Miami Case (Roll & Pratt, 1971)

When Pratt and I arrived at Tropication Arts, a warehouse for novelty items in Miami, Florida, we noticed that there were certain shelves from which things were more likely to take off. This suggested an experiment where we placed things from the warehouse on the special shelves. We asked Julio, the 18-year-old shipping clerk who was the center of the activity, and the other employees to stay away from these sites.

One time I watched Julio place a ceramic alligator on a shelf when a glass four feet behind him fell to the floor and shattered. Both his hands were occupied; in the right he held the alligator, in the left his clipboard. The two other workers in the room were more than 15 feet from the glass. They could not have picked it up previously and then thrown it because we had placed the glass on the shelf ourselves and no one had been near it since then. The glass was among ten targets we had set out that moved when one or both of us had the area under surveillance and when we were the first to enter the area after the incident. The incident was also among seven when Pratt or I had Julio in direct view at the time. We could not account for these events except by RSPK. The clustering of events in certain areas and on certain types of objects suggested area and object focusing. There was a significant reduction of occurrences with distance from the agent.

Mischo (1968) has suggested that objects affected by RSPK are "substitute objects" that represent people associated with the objects. Gertrude Schmeidler, who analyzed Julio's responses to the thematic apperception test (TAT) and Rorschach pictures (in this study as in most of our others) said that Julio experienced the owner as "phoney and cheating." (Roll, 1972, p. 171). The events caused the breakage of merchandise and the disruption in business.

There was a subtle change during our investigation. Pratt and I hoped to witness the occurrences, and after a few days objects moved in our presence, seven of these when we had Julio in direct view. It seemed as if he was rewarding our attention. The breakages would probably have continued whether we were there or not but they would not have involved the objects we set out. The meaning of the events had changed and thereby the course they took, but the intensity of the energy seemed the same. There were no incidents when Julio was absent. However, a reporter who stayed alone in the warehouse overnight claimed there was an object movement of several feet.

The Olive Hill Case (Roll & Stump, 1969; Roll, 1972, Ch 11)

John and Ora Callihan had seen most of their ceramic lamps and figurines carried out as buckets of shards from their home in rural Kentucky. Their 12-year-old grandson, Roger, who regularly assisted his grandparents, helped with this chore as well.

The movements had been confined to the grandparents' home, but changed to the boy's when John Stump and I were there. At one point, I was following Roger into the kitchen, when the kitchen table flew up, rotated 45 degrees and fell down on the backs of the chairs that stood around it, its four legs off the floor. Roger and the table were in full view when this happened. Later, when I was standing in the doorway between the living room and the children's bedroom, I saw a bottle fly off the dresser and land four feet away. It did not slide off and roll into the room but was clearly airborne. When this took place, Roger was in my peripheral vision on my right in the living room, walking away. His sister was standing slightly behind me on my left; there was no one else in the room. I could discover no way in which the event could have been faked. Altogether there were 10 occurrences when Stump or I were watching Roger and the disturbed object when he had no tangible contact with it. The family described about 184 incidents in the grandparents' home before we arrived, of which 21 apparently occurred when Roger was away.

I speculated that the boy was frustrated at spending time with the grandparents and that this was part of the explanation for the breakages in their home. The inclusion of Roger's own home when we were there, I thought, was due to the attention we paid the boy. As in Miami, the presence of investigators seemed to change the incidents. Here too there were significantly fewer events as the distance from Roger increased.

The family members were Jehovah's Witnesses and attributed the events to a demon. When the incidents started up in their own home after John and I arrived, Roger's mother concluded that we had brought the demon along from the grandparents' and asked us to leave, hoping the demon would follow. This unfortunately did not happen. We had to depart while the occurrences were still going on.

Tina Resch at Spring Creek Institute (Baumann, 1995)

Dr. Stephen Baumann, who was then at the University of North Carolina, Chapel Hill, was setting up tests for micro-PK at Spring Creek Institute. When the equipment was ready, in October 1984, Tina Resch was invited to be a subject. The previous March, the 14-year-old had been the center of disturbances in her home in Columbus, Ohio (Roll, 1993). That case had not seemed promising at first. Before I arrived at the home, a TV news crew had filmed Tina pulling over a lamp, and the incidents that took place the first three days I was present could have been staged. But then there was a string of occurrences in my presence that I could not dismiss. Tina and her parents, John

and Joan Resch, agreed to my bringing her to North Carolina for research and counseling.

By the time Baumann was ready, the activity around the girl had died down. To bring the incidents back, a psychotherapist, Jeannie Stewart, who was counseling Tina, suggested that hypnosis might evoke the bodily sensations that had been associated with the events and thereby the events themselves (Stewart, Roll & Baumann, 1987). This led to a resumption of occurrences.

The question at the back of my mind when I brought Tina to Spring Creek was whether PK could be used as an adjunct to medical treatment. Baumann (1995) did two tests with Tina. In one she tried to influence electric discharges from the nerve cell of a sea slug, in the other from a piezoelectric crystal. This material is found in teeth, bone and connective tissue. The results were promising but there were problems in the test protocol that made them difficult to evaluate.

The RSPK occurred during breaks in the tests when Tina was not trying to use PK. To study the incidents under controlled conditions, we set up a table with PK targets. If any moved, we would know where it came from. Tina was not allowed near the table; otherwise her movements during the rest periods were not restricted. The heaviest target to move was a 12 inch socket wrench. When Stewart and Baumann were standing between Tina and the target table and facing her, there was a loud noise from the hallway behind the girl. The wrench had moved 18 feet, passed the two experimenters and Tina without notice, and hit the door to a storage room. In all, there were 21 movements of objects when Tina was under observation, of which eight came from the target table. The incidents showed a significant decrease with distance.

Nearly all the events took place when Tina was present. The single exception was in her home after John had taken her to church and Joan was home alone with their four young foster children. She said she was downstairs with the children when there were rumbling noises from the empty rooms. When John returned, they found that the mattresses had come off the two beds in Tina's room and her dresser had moved out from the wall. The furniture in her brother's room and in the sitting room had also moved. Tina was still in church and the front door was locked.

The original incidents seemed to reflect Tina's negative feelings about her family and herself (Carpenter, 1993). But when she came to North Carolina, the incidents were wanted. From being destructive to others, the RSPK had become desirable.

The Electromagnetic Field of Space

Physics is a way to talk about psychic phenomena in a respectable manner.

I have suggested that psi effects may be understood in terms of 'psi fields' that have psychological and physical characteristics and surround and connect physical objects (Roll, 1964). William Joines (1975) suggests more specifically

that RSPK is due to "psi waves" that manifest as wave motion like physical waves and interact with the objects to generate their movements. As in the case of physical waves, there should be a decline of incidents with distance from the source, that is, the RSPK agent. This was seen in the three selected cases and in other cases as well. Object and area focusing would also be consistent with the physical wave analogy. This too was seen in all studies. It was harder to explain how the actual movement of objects could be accomplished. The most likely scenario, we thought, was a suspension of gravity at the site, but we did not know how this could come about (Roll & Joines, 2001).

Hal Puthoff (private communication, Feb. 8, 2001) has proposed that an object may be freed from gravity/inertia if the RSPK agent affects the zero-point energy (ZPE), a sea of random electromagnetic fluctuations that fills all of space. The agent would not generate the energy for object-movements, but would cause the ZPE to cohere and thereby loosen the hold of gravity/inertia that ordinarily keeps things in place. Gravity is closely related to inertia, the effect that causes stationary objects to remain at rest and moving objects to remain in motion. Puthoff gives an example: If you stand on a train at a station and it leaves with a jerk, inertia may cause you to topple backwards (and lurch forward if the train suddenly stops). Inertia, it is thought, is due to pressure from the ZPE. The electromagnetic fluctuations of the ZPE have been detected in the lab (e.g., Chan et al., 2001).

In the light of the ZPE theory, Joines analyzed the decline of occurrences with distance in the Miami, Olive Hill, and Tina Resch cases. The best fit was a product of an inverse distance curve and an exponential decay curve. This was consistent with the ZPE theory. The electromagnetic aspect of psi waves should be attenuated by dispersal in space, and the waves should be converted to some other form of energy as they penetrate the ZPE. In previous analyses of the Miami and Olive Hill cases (Roll, Burdick & Joines, 1973, 1974), where we plotted the data against the inverse and exponential curves, the latter gave the better fit. The exponential effect is seen when energy passes through a "lossy" medium. Sunlight going through water and being converted to kinetic energy (i.e., heat) is an example. We thought that in RSPK psi waves were converted to the kinetic energy seen in the movement of objects.

If RSPK involves transient reductions of the gravity/inertia of the moving objects, the reductions should be reflected in a lowering of the weights of the objects. I do not know of any work where weight measurements were made of the objects or areas in RSPK, but Hasted, Robertson, and Spinelli (1983) reported two sudden increases of the body weight of J. H., the agent for the Enfield RSPK (which had ceased by then). The increases were about one kilo and each lasted five seconds. Just before the two episodes J. H. had been asked to rock slowly back and forth, but there were no weight anomalies during this activity. Two other subjects, presumably inactive, showed four transient increases of up to 0.8 kilo, each taking less than a second. The three subjects were the only ones in a group of about 20 to show weight anomalies.

RSPK may be an extreme form of normal processes within the body. Strenuous physical exertion, such as running and weightlifting, is sometimes associated with feelings of lightness. In sports such as golf and baseball, players who enter the "zone" claim that the ball moves more forcefully and accurately than in ordinary states of consciousness (Murphy, 1993, p. 444; Murphy & White, 1978). According to Japanese practitioners of martial arts, *ki* (in China, *chi*) operates within the body in "internal *ki*" and between body and environment in "external *ki*," the equivalent of PK. In a summary of martial-arts lore, Murphy (1993, p. 452) notes that adepts are said to mass *ki* in the body to increase its weight or to dissipate *ki* to make the body lighter. Some adepts reportedly knock down opponents or break physical objects by *ki*.

A weightlifting program called "gravitational gymnastics" is used by Vladimir Chubinsky (Kicklighter, 2000) to alleviate the physical or mental problems of clients. By lifting increasingly heavier weights in the course of weekly sessions, the problems are reportedly reduced and energy increases. It is not known whether the procedure results in actual weight anomalies.

If PK is involved in the workings of the skeletal muscles, the body should weigh less during physical activity and more during rest (but note that the rocking motions of J. H. were not associated with weight gains). Death, the ultimate rest, should result in weight gains. Lewis Hollander (2001) reports transient weight gains in seven dying sheep (but not with three lambs and a goat) that were to be slaughtered. The gains ranged from 18 to 780 grams and lasted one to six seconds. On the other hand MacDougall (1907) found weight losses of between three-eighths to one-and-a-half ounces in four persons at the moment of death. He attributed the losses to the weight of the departing soul. MacDougall used mechanical gauges, Hasted and Hollander used electronic systems.

Observer Participancy

The world is a structure and the architects are us.

Physics is considered the bedrock on which the other sciences rest and to which they can ultimately be reduced. This bedrock is not as solid as it once seemed. The change is epitomized by John Wheeler's (1990) concept of "observer participancy." Wheeler says, "Observer participancy gives rise to information; and information gives rise to physics." (Quoted by Frieden, 1998, p. 1.) The idea that perception affects the physical world is not new (Berkeley, 1713/1988; Russell, 1926). What is new is that the ideas of Wheeler and others like him are based on experiment. In the famous two-slit experiment photons behave like waves or like particles according to how the process is being observed.

A radical formulation of observer participancy is due to Roy Frieden (1998): "The 'request' for data creates the law that, ultimately, gives rise to the data. The

observer creates his or her local reality." (p. i). Frieden goes beyond quantum mechanics when he derives statistical mechanics, thermodynamics and the Einstein field equations from a theory where the observer is part of the phenomena that are measured. He describes all physical processes in terms of differential equations. (The theory is an outgrowth of the work of the British statistician, A. R. Fisher.) According to Frieden, observation injects information into its object. Information thereby interacts with the energy and matter within the object and between this and other objects. Information is "a physical entity" that can "flow" from one object to another (p. 106).

Evan Walker (1974, 1985) has noted that tests in psychokinesis and quantum mechanics both imply that human operators affect physical systems. "This must lie at the heart of the solution to the problem of psi phenomena; and indeed an understanding of psi phenomena and of consciousness must provide the basis of an improved understanding of [quantum mechanics]." (1985, p. 26). Walker brings in the Bell theorem as another instance where quantum mechanics and parapsychology may overlap. Tests of the Bell theorem have shown that the two halves of a subatomic system interact instantaneously across kilometer distances, in other words that objects connected in the past remain connected when separated, and this without the benefit of light or other electromagnetic signals.

Walker's theory of psi is restricted to statistical effects that are allowed by the Heisenberg uncertainty principle. Macro-PK, where movements of large-scale objects are observed, he says may require an outside source of energy (1974, p. 564). RSPK researchers George Owen (1964) and Hans Bender (1969, p. 100) have reached similar conclusions. The zero-point energy could be the source.

F. W. H. Myers (1903), a leading light in early parapsychology, postulated a "metetherial environment" where life and thought are carried on apart from matter (p. 215–218). The metetherial environment is equivalent to the "subliminal self" where the self extends beyond the borders of its waking, "supraliminal" counterpart. Myers suggested that the metetherial environment is continuous with the ether that was thought to permeate space. The ether has since been replaced by the ZPE.

Psychological Aspects of Observer Participancy

Puthoff (private communication, Feb. 8, 2001) suggests that if the ZPE is involved in RSPK, this shows that the ZPE has a consciousness component. It seems clear that psychological factors, especially emotion, are involved in RSPK (Carpenter, 1993; Mischo, 1968; Roll, 1968, 1972, 1977). But for most agents, the phenomena seem to be no more conscious than muscle spasms. On the other hand there are anecdotal reports that some RSPK agents have learnt to bring the phenomena on at will (Roll, 1977). If these reports can be trusted, they suggest that the process may become conscious.

Psychologists have shown that perception and behavior are molded by physiology, intention, needs, memories and other cognitive and conative factors

that are likely to be different for each person. Physics on the other hand does not predict that differences between observers are associated with different experimental results. From the usual physics perspective the effect of observation is the same for all observers. This is not true for psi research. In their micro-PK experiments with random event generators, Jahn and Dunne (1987) report deviations above or below chance expectancy according to the intentions of their subjects. Similar results have been reported by others. The principal difference between this work and the tests in physics is the focus on motivation in PK. In RSPK, the link between motivation and event seems obvious as well.

Observation and its emotional concomitants are known to affect the way people perceive and act on the environment. It would be surprising if the same were not true for physicists and their experiments. It is suggestive that results in tests conducted by believers in a certain effect (cold fusion comes to mind) support their belief while skeptics get null results. It should be part of the experimental protocols in physics that the intentions and beliefs of the researchers be recorded to determine if there is a correlation with the results (psi tests suggest that researchers may affect results even though they are not present at the test).

Frieden (1998) is the only physicist I know of who proposes that observation is affected by "...*the meaning* of the acquired data to the observer" [his italics] (p. 235). Observation is "knowledge based" as well as physical. Frieden does not continue this train of thought, but it leads to the expectation that there will be different results in tests by physicists to whom the results have different meanings.

Frieden's theory has another consequence. If observation leaves an imprint on the observed object, this should affect subsequent observations by others. The practice of psychometry may be a case in point. In psychometry the subject is said to obtain information about a distant individual solely by handling an object, such as a personal belonging, that is associated with the individual (Duncan & Roll, 1995, Ch. 10). The same reportedly occurs if the subject enters the home of the person. If the person is deceased, and the impression takes the form of a visual image, this may lead to the belief that the departed haunts the home. Reports of haunting apparitions of living people are at least as frequent (e.g., Roll et al., 1996).

Psychometry tests are out of style, but psychometrists are often asked to locate a criminal or a missing person by means of an object with which the person has been in contact, such as a piece of clothing. Explorations in the early days of parapsychology suggest that the phenomenon may be real (Osty, 1923; Roll, 1967, 1975).

H. H. Price (1940) has advanced the concept of "place memories" to account for psychometry and veridical haunting apparitions (i.e., apparitions that resemble people who occupied the area and are unknown to the percipient). According to Frieden's version of observer participancy, it makes sense that interaction with an object or area should affect later observations by others.

Price's concept of place memory should not be confused with the conventional meaning of the term, the tendency to remember events by revisiting the place where they took place. In Price's sense of the term, you "remember" events experienced by others. Like familiar memories, events that are recent, frequent and emotionally significant (to the earlier observer) may be more likely to be brought to mind by the later observer than others (Osty, 1923; Roll, 1967, 1975).

To understand how emotion may bring on actual movements of objects, the concept of observer participancy may be combined with the ZPE and psi wave theories. By interacting with the ZPE, the electromagnetic component of psi waves would be expected to bring on a transient attenuation of the gravity/inertia that ordinarily keeps things in place. If an emotionally charged object has been freed of gravity/inertia, the object may levitate. The role of the RSPK agent would be twofold, to cause a brief cancellation of the gravity/inertia of the object by cohering the ZPE and to direct energy to the object for it to move. Because the object is now free to move, the intensity of the energy from the agent would be relatively minor.

The ZPE theory of RSPK says that an object may move when its weight is reduced. Object focusing, where the same object is repeatedly affected, may suggest that some reduction of weight persists so that the object is more likely to move again than others (the objects must be equidistant from the agent to rule out the effect of proximity). The type of object focusing where similar objects move may be a resonance effect. Area focusing, where the same location is the center of repeated movements, may indicate that prior events leave a modification of the local gravitational/inertial field that persists for some time. These possibilities can be explored by comparing the weight of an RSPK object immediately after the event with its weight after a period of time.

According to the ZPE theory, weight losses of RSPK objects result from cohesion of the electromagnetic field of the vacuum. This leads to the further expectation that anomalous electromagnetic readings may be obtained near RSPK objects or areas. I know of only one relevant study, an investigation by Joines (1975) where he detected an emission of 146 MHz in an RSPK area. The emission lasted about a minute and was about two feet in diameter, which is consistent with a frequency of 146 MHz.

There are other indications that electromagnetism may be at work in RSPK. Several agents show symptoms of complex partial seizure (CPS); in other words their brains are subject to sudden electromagnetic discharges (Roll, 1977). It has also been found that the onset of RSPK is associated with geomagnetic perturbations (Gearhart & Persinger, 1986; Roll & Gearhart, 1974).

Frieden spells out the interaction of observer and object when he defines an object as composed of two types of information, information acquired by observing the object, which he designates *I*, and information that the object is yet to reveal, designated *J*. The purpose of science is to reduce *J* in favor of *I*. From a psychological perspective, *I* is conscious information, *J* is unconscious

information. Conscious information represents the object as it is known to science; unconscious information represents its unknown properties. Psychometric information, usually unconscious, may be accessed by people who are skilled in this form of perception.

In studies of micro-PK where the subject's task was to affect random physical processes, Jahn and associates (Jahn et al., 1997) have found that subjects who were at a distance from the machines were as successful as when in the same room. Similar findings have been reported by others. What seems important is not the physical proximity of the machine but its proximity in terms of meaning. The successful subjects mentioned "... a sense of 'resonance' or 'bond' with the machine; ... of 'falling in love' with it; of 'having fun' with it."

Is it possible to develop macro-PK abilities? It is sometimes reported that practitioners of yoga and meditation develop psychokinetic abilities. This may suggest that the ZPE can be manipulated without technical tools. The Buddhist concept of reality as *sunyata*, a plentitude of no-things with which you may unite if your mind is emptied of particulars, is not unlike the idea of the vacuum as an infinite field of energy and consciousness. (An anonymous Zen Buddhist has called Zen "the vacuum cleaner of the mind.")

We may see the same process at work in these practices as in RSPK, but in a voluntary rather than involuntary form. Yogic or meditative practices would add a dimension of personal exploration to the enterprise.

Concluding Remarks

The goal of science is no longer the observation of immutable reality but the realization of one possibility over others. Which possibility will become manifest would depend on the intention of the observer. Observer participancy weaves ethics into the fabric of science.

Observer participancy has arrived in the public forum with an article in *Discover* magazine (Folger, 2002) about Wheeler and others who share his perspective. Folger quotes Stanford University physicist, Andrei Linde, as saying that conscious observers are an essential component of the universe.

In the words of Jahn and Dunne (1997): "Consciousness ... defines itself only in its interactions with its physical surround. Conversely, just as physical detectors respond only to external stimuli, the 'objective' properties of the universe are, without exception, only defined by some inquiring, ordering consciousness. This recognition, in turn, opens the door to admittance of the most powerful, but most difficult to represent, family of subjective parameters, those of the teleological genre that comprise conscious (and very possibly unconscious) intention, desire, will, need, or purpose. These are demonstrably primary correlates of empirical consciousness-related anomalies of all ranks, from laboratory-based microscopic human/machine effects, to macroscopic poltergeist phenomena, to creativity of all forms."

Notes

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